Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

ORIGINAL

In the Matter of	)	
	)	
Advanced Television Systems and Their	)	MM Docket No. 87-268
Impact upon the Existing Television	)	
Broadcast Service	)	

To: The Commission

RESPONSE TO
***EX PARTE* SUBMISSION OF ALTV**

Sinclair Broadcast Group, Inc. ("Sinclair"), by its attorneys, hereby responds to the *ex parte* submission of the Association of Local Television Stations, Inc. ("ALTV"), filed on November 25, 1997.[1/] Sinclair believes that the DTV power levels allotted to UHF stations operating in the UHF digital band are insufficient, and will leave these stations unable to provide high-quality service within their core service areas.[2/] Sinclair continues to believe that the best way to resolve this problem is to increase significantly these stations' allotted power levels. In the event the Commission maintains the currently allotted power levels, however, Sinclair fully supports adoption of ALTV's proposal that DTV licensees be permitted to use beam-tilt

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1/ Sinclair also is a participant in the Joint Response filed concurrently by numerous UHF broadcast television licensees, and it fully supports the views expressed in that Joint Response. The Joint Response also addresses the *ex parte* submission of MSTV, filed November 20, 1997. See Joint Response to *Ex Parte* Submissions of MSTV and ALTV (December 17, 1997).

2/ The effects of the DTV power disparity between these UHF stations and NTSC VHF stations relocating to the UHF band for digital operations are described in detail in Sinclair's Petition for Reconsideration in the above-captioned proceeding, filed June 13, 1997.

technology in order to overcome the effects of this lower power. Sinclair has attached a letter from Dielectric Communications demonstrating that tilt-beam antennas can effectively and reliably mitigate the problems associated with these lower power levels.

Respectfully submitted,

SINCLAIR BROADCAST GROUP, INC.

By: Martin R. Leader

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Its Attorneys

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Dated: December 17, 1997

ATTACHMENT

DIELECTRIC COMMUNICATIONS
A UNIT OF GENERAL SIGNAL

O. Sandov
Vice President Antenna Engineering & Advanced Technologies

December 16, 1997

Mr. Nat Ostroff
Sinclair Communications
2000 W. 41st Street
Baltimore, MD 21211

Dear Nat:

Herewith are the answers to your questions about DTV antennas:

1. *Will tilt beams be manufactured to permit a station to increase its power by 15 to 20 times?*

   The electrical beam tilt of moderate to high-gain panel antennas can be designed and manufactured such that the power toward the horizon is 15-20 times below the power on the peak of the main beam.

   The design of the same electrical beam tilt into other than panel antennas is more difficult and is subject to tradeoffs such as much lower gain for a given antenna height and adequate signal availability throughout the coverage area.

2. *Does a tilt a beam antenna cost more than a conventional antenna?*

   There is no added cost to antennas designed with electrical beam tilt.

3. *What is the margin for error with tilt beams? Do tilt beam antennas reliably keep the signal within a station's assigned protected contour? Once installed, will wind, weather, atmospheric changes and tower sway cause a tilt beam to send out emissions beyond its protected contour? Technical analysis will be necessary. Is there a way to adjust for these variances in advance?*

   Our best estimate at this time is that for a straight 1000' tower and a wind speed of 50 mph at the antenna, a margin of error of approximately .4° beam tilt is possible. The .4° error may be corrected in panel antennas by adding .4° mechanical or electrical tilt. For end-fed antennas, the variation of power across the channel may be such that adequate protection margin through beam tilt alone may not be possible. The

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feasibility of adding a combined electrical/mechanical tilt margin to antennas other than panel antennas is subject to a case-by-case technical analysis.

4. *Is there a general rule between power and the "tilt" of the beam that the FCC could use as a general guide in establishing a rule? For example, for every degree of downward tilt, can a station increase power by "X" number of kilowatts?*

   A formula that relates the tilt to the increase of power does not, to the best of our knowledge, exist at this time. Such a formula or rule could be developed and will depend on the antenna gain.

5. *Antenna pattern verification: How can this be accomplished? If a certified engineer examines the antenna to make sure it was installed correctly, will this be enough to insure no changes from factory specifications? What about automatic monitoring devices?*

   Adequate verification that the as-installed antenna performs as-designed can be accomplished through a factory measurement of the beam tilt and by surveying the mechanical tilt (if any) after the antenna is installed. To our knowledge, there are not automatic monitoring devices that can monitor the beam tilt of the antenna while it is operating.

6. *Can you side mount a tilt beam? Can you use more than one on a tower? What about tall towers?*

   Beam tilted antennas can be side-mounted on any tower of any height. The beam tilt of an individual antenna is unaffected by other antennas on the same tower.

If you need further information or have new questions, please don't hesitate to contact me.

Best regards,

CERTIFICATE OF SERVICE

I, Claudia L. Lucas, a secretary to the law firm of Fisher Wayland Cooper Leader & Zaragoza L.L.P., do hereby certify that I have this 17th day of December, 1997, mailed by first-class United States mail, postage prepaid, copies of the foregoing **"Response to Ex Parte Submission of ALTV"** to the following:

Victor Tawil
Senior Vice President
Association for Maximum
Service Television, Inc.
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Washington, DC 20036

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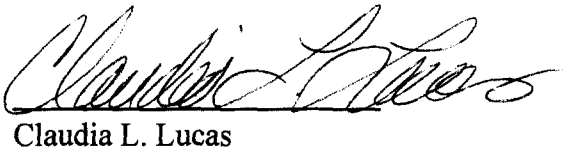

Claudia L. Lucas